

Applicant: Nestor RODRIGUEZ-AMAYA et al
Docket No. R.307421
Preliminary Amdt.

AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

[0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS

[0000.4] This application is a 35 USC 371 application of PCT/EP 2005/050210 filed on January 19, 2005.

[0000.6] BACKGROUND OF THE INVENTION

Please replace paragraph [0001] with the following amended paragraph:

[0001] ~~Prior Art~~ **Field of the Invention**

Please add the following new paragraph after paragraph [0002]:

[0002.5] Description of the Prior Art

Please replace paragraph [0003] with the following amended paragraph:

[0003] In connection with the invention, the following discussion will refer only to the unit fuel injector (UFI), although pump-line-nozzle units (PLNUs) are always intended as well. The most essential distinction between unit fuel injectors and pump-line-nozzle units is that a pump-line-nozzle unit has a short high-pressure line between the pump element and the injection nozzle. For the present invention, this distinction does not matter, and hence ~~patent protection is claimed~~ the invention applies equally for unit fuel injectors and pump-line-nozzle units.

Page 2, please replace paragraph [0006] with the following amended paragraph:

[0006] ~~Advantages of the Invention~~

SUMMARY AND ADVANTAGES OF THE INVENTION

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Please replace paragraph [0007] with the following amended paragraph:

[0007] As a result of ~~this structural provision, the~~ **fixedly connecting the armature and valve member**, bouncing of the armature on the valve member can be effectively averted. Because of the rigid, fixed connected between the armature and the valve member, a separate guide of the armature can be omitted, since the armature is guided by the valve member. Tipping or tilting of the armature in its guide during operation and the resultant functional problems of the unit fuel injector therefore no longer occur.

Page 5, please replace paragraph [0017] with the following amended paragraph:

[0017] The magnet valve of the invention can be installed especially advantageously by means of a method in which the fully machined valve member is locked in a receptacle of a fixed installation device; the magnet plate and the spacer plate are mounted on the receiving mandrel; the magnet plate, spacer plate and valve member are pressed against the receptacle; next, the magnet plate and the spacer plate are displaced by [[an]] **a predetermined** amount [[A]] relative to the valve member; and the armature is secured to the receiving mandrel of the valve member in such a way that the armature rests on the magnet plate.

Page 6, please replace paragraph [0019] with the following amended paragraph:

[0019] It has proved advantageous if the magnet plate and the spacer plate are displaced by an amount [[A]] that corresponds to the sum of the valve stroke and a desired remanent air gap between the armature and the magnet plate in the closed state of the magnet valve.

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Page 7, please add the following new paragraph after paragraph [0022]:

[0022.5] **BRIEF DESCRIPTION OF THE DRAWINGS**

Please replace paragraph [0023] with the following amended paragraph:

[0023] Further advantages and advantageous features of the invention can be learned from the ensuing ~~drawings, their description, taken in conjunction with the drawings, in which:~~ and the ~~claims. All the characteristics described in the drawings, their description, and the claims can be essential to the invention both individually and in arbitrary combination with one another.~~

Please delete paragraphs [0024] and [0025].

Please replace paragraph [0026] with the following amended paragraph:

[0026] Fig. 1[[],] is a unit fuel injector of the invention, with an only schematically shown magnet valve;

Page 8, please replace paragraph [0028] with the following amended paragraph:

[0028] Figs. 3-7[[],] show structural details of the magnet valve of the invention.

Please replace paragraph [0029] with the following amended paragraph:

[0029] ~~Description of the Exemplary Embodiments~~

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Please replace paragraph [0031] with the following amended paragraph:

[0031] The unit fuel injector 1 is controlled by a 2/2-way control valve 5 which is shown in the form of a block circuit diagram in Fig. 1.

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Page 13, please replace paragraph [0051] with the following amended paragraph:

[0051] The installation and calibration of the magnet valve 5 are done in an installation device or fixture 61. This installation device 61 includes a cylindrical receptacle 63, in which the valve member 21 is received. The valve member 21 rests with the underside of the stroke stop 55 on one end of the receptacle 63. Next, the spacer plate 57, which may be of simple steel, and the magnet plate 45 are placed on the valve member 21 in such a way that the spacer plate 57 rests on the stroke stop 55, and with the aid of a pressing sleeve 65, the magnet plate 45 and the spacer plate 57 are pressed against the stroke stop 55.

Page 14, please replace paragraph [0053] with the following amended paragraph:

[0053] The spacer plate 57 and the magnet plate 45 move away from the stroke stop 55 by an amount A relative to the valve member 21. This position of the spacer plate 57 and magnet plate 45 is shown in Fig. 5. The amount A is equivalent to the desired maximum valve stroke [[h]], plus a required remaining gap between the armature 41 and the magnet plate 45 in the closed state (not shown).

Please replace paragraph [0054] with the following amended paragraph:

[0054] The installation sleeve 67 is locked in the position shown in Fig. 5 relative to the receptacle 63. Next, the armature 41 is pressed from above onto the receiving mandrel 43 of the valve member 21 (see Fig. 6). As a result, the valve stroke of the magnet valve 5 is thus adjusted and production inaccuracies in the manufacture of the valve member, the spacer plate 57, the magnet plate 45, and the armature 41 do not affect the adjusted valve stroke [[h]].

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Please replace paragraph [0055] with the following amended paragraph:

[0055] A plurality of longitudinal bores 42 are provided in the armature 41, so that the motion of the armature 41 in the capsule 49 is not hindered by the fuel (not shown) located in the capsule. At the same time, the design of these longitudinal bores 42 is utilized to achieve the optimal damping of the motion of the armature 41 and the valve member 21 at the end of the stroke. To that end, the longitudinal bores [[41]] **42** may have one or more throttle restrictions, not shown.

Page 15, please replace paragraph [0058] with the following amended paragraph:

[0058] If that proves not to be the case, then the spring force of the compression spring [[35]] **54** can be adjusted by replacing the adjusting disk 26 with an adjusting disk 26 (see Fig. 2) of a different thickness.

Page 17, please add the following new paragraph after paragraph [0065]:

[0066] The foregoing relates to a preferred exemplary embodiment of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.